Project A

**2.1 Plate tectonics**

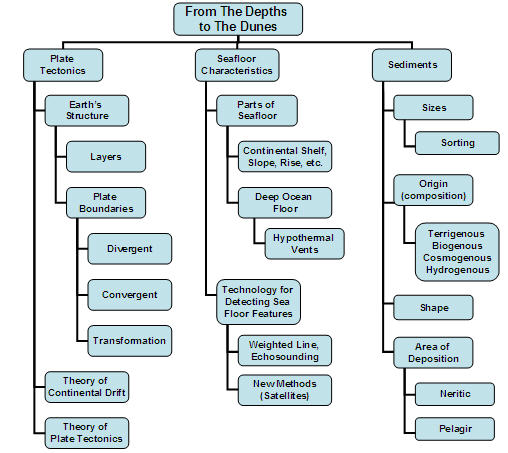
2.1.1 Relate plate tectonics to crustal movements and geological features of the earth.

2.1.2 Describe the supporting evidence for the theory of plate tectonics.

2.1.3 Describe the three plate boundaries:  divergent, convergent, and transform fault

**Questions to answer….**

1. Describe the layers of the Earth to include position, composition, and any unique characteristics.
2. What is the theory of plate tectonics?
3. Who is responsible for the theory?
4. What evidence was used to create the theory and what additional evidence supports the theory?
5. Identify the three ways plates move.
   1. What features are created by each movement?
   2. Where do these movements occur today?
6. How are the movements of the crust related to the geologic features we see today?

Project B

**2.2 Characteristics of the ocean floor**

2.2.1 Describe the features of the seafloor and explain their origins due to the combination of plate tectonics and erosion/deposition.  Include continental margins and ocean basin.

2.2.2 Differentiate between the properties of continental crust and oceanic crust; differentiate between lithosphere and asthenosphere.

**2.3 Satellite altimetry**

2.3.1 Relate satellite imagery to the topography of the ocean floor

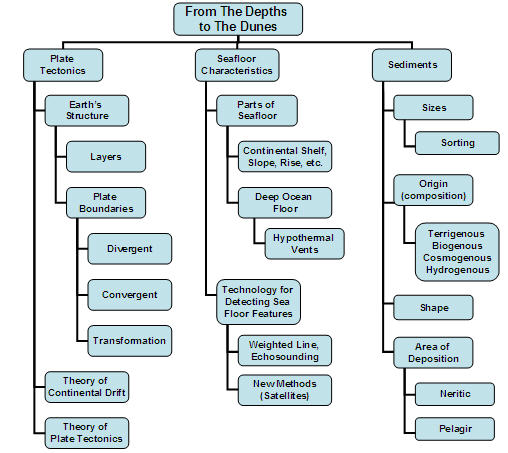
**2.5 Hydrothermal Vents**

2.5.1 Explore the hydrothermal vent system via Alvin

**Questions to answer….**

1. What are the features of the sea floor?
   1. How are these features created? (include geologic formation information)
2. Compare and contrast continental and oceanic crust.
   1. Composition
   2. Density
   3. Position on the surface
3. Compare and contrast lithosphere and asthenosphere.
   1. Composition
   2. Density
   3. Purpose
4. How has satellite imagery impacted our ability to “see” the sea floor and to represent our findings?
5. What are hydrothermal vents?
   1. Where are they found?
   2. What makes them unique?
6. What life can be found near these vent systems?
7. What vessels have explored the vent systems?
   1. What tools did they use?

Project C

**2.4 Characteristics of marine sediments.**

2.4.1 Differentiate between the different sediments, based on size, shape, and origin i.e.

* biogenous
* hydrogenous
* terrigenous
* cosmogenous

**Questions to answer….**

1. What are the four types of ocean sediment?
   1. Where do these sediments originate?
2. How do we categorize sediments?
3. What components are considered when sorting sediments?
4. What are the characteristics of the types of sediment?
5. Why is the shape of the sediment important?
6. Explain the process of sediment deposition.
7. Identify key locations for sedimentation.
8. Compare and contrast the characteristics and the uniqueness of each location.

A Questions to answer….

|  |  |
| --- | --- |
| Describe the layers of the Earth to include position, composition, and any unique characteristics. |  |
| What is the theory of plate tectonics? |  |
| Who is responsible for the theory? |  |
| What evidence was used to create the theory and what additional evidence supports the theory? |  |

|  |  |
| --- | --- |
| Identify the three ways plates move. |  |
| What features are created by each movement? |  |
| Where do these movements occur today? |  |
| How are the movements of the crust related to the geologic features we see today? |  |

B - Questions to answer….

|  |  |
| --- | --- |
| What are the features of the sea floor? |  |
| How are these features created? (include geologic formation information) |  |
| Compare and contrast continental and oceanic crust. |  |
| Composition |  |
| Density |  |
| Position on the surface |  |
| Compare and contrast lithosphere and asthenosphere. |  |
| Composition |  |
| Density |  |
| Purpose |  |
| How has satellite imagery impacted our ability to “see” the sea floor and to represent our findings? |  |
| What are hydrothermal vents? |  |
| Where are they found? |  |
| What makes them unique? |  |
| What life can be found near these vent systems? |  |
| What vessels have explored the vent systems? |  |
| What tools did they use? |  |

C - Questions to answer….

|  |  |
| --- | --- |
| What are the four types of ocean sediment? |  |
| Where do these sediments originate? |  |
| How do we categorize sediments? |  |
| What components are considered when sorting sediments? |  |
| What are the characteristics of the types of sediment? |  |
| Why is the shape of the sediment important? |  |
| Explain the process of sediment deposition. |  |
| Identify key locations for sedimentation. |  |
| Compare and contrast the characteristics and the uniqueness of each location. |  |